Cost and Project Management Risk from a Contractor Perspective

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PURPOSE OF BRIEFING

- What are the approaches and strategies for construction staging costs and risks from a contractor perspective.
- What areas drive up costs?
- What are your risks during a construction project?
- How do you do an analysis to determine the best way to stage the job (e.g. resourcing, equipment, personnel, etc.)?

Approaches and Strategies for construction staging costs and risks.

- Approaches to Ascertain the Risk – How do we approach the project
  - Who is the Client
  - What contract form is being used
  - How is the opportunity being presented – bid or RFP
  - What conditions do we have to work with
  - How will we be treated if things go wrong?
  - Will Client use Best Value or is this really Technically Acceptable- Lowest Cost?

Strategies for Cost and Risk

- Bid low
- Codify the bid during the proposal submission
- Look for labor cost sharing with other projects
- Focus on local resources
- Detailed cost estimates by WBS
  - Profit can vary within Project Task
  - Use of Management Reserve
  - Use of Contingency Reserve
- Use Probability Outcome Analysis and Monte Carlo to ascertain cost

What Areas Drive Up Costs?

- Liquidated Damages
- Performanced based FFP SOW contracts
- FFP Poorly written SOW
- Execution Constraints
  - Access
  - Operating times
  - Stakeholders
  - Regulators
- Davis Bacon vs Service Contract Act

What Areas Drive Up Costs?
(Continued)

- Bonds- Prime and Sub
- Weather Patterns
- Natural Disasters
- Schedule
- Payment / Cash Flow Patterns
- Labor transfer ratios
- Warranty Issues
- Site and Material Security

What Are Your Risks During A Construction Project?

- Design Liabilities
- Construction Liabilities
- Self-Performed Construction
- Cash flow-Milestones
- Subcontractor Performance
- Directed Subcontractor Use

What Are Your Risks During A Construction Project?

- If staged, CAP (Materials &Personal Property)
- Health and Safety
- Labor Turn-over
- Weather
- Communication to Client
- Project Acquisition Strategy – Prime and Subcontracts

How Do You Do An Analysis To Determine The Best Way To Stage The Job?

(e.g. Resourcing, Equipment, Personnel, etc.)

- Review Internal Factors
  - Time frames for execution
  - Available Internal Labor Resources
  - Available Equipment
- Review External Factors
  - Equipment Lease, Buy Rent Analysis
  - Ascertain Team Sub Support
  - Check availability of specialty subcontractors
- Contract vs Self Perform Analysis
  - Contrast self perform cost to Sub+markup cost
  - Review risks associated with Self Perform and Sub

Impacts of Staged / Incremental Funding

- Form of Contract
  - *Cost/T&M*
  - *Firm Fixed Price*
- Project Scheduling
  - *Timely*
  - *Updated*
- Requires discrete project segments or quantification
- Requires strong oversight to avoid “parked” funds

What Saves Cost?

- Properly Conducted Value Engineering
  - Under utilized
  - Good idea for “Shelved” Projects
  - Should be by third party, quick and free from Project level influence
  - Avoids gold platting associated with over design and AE liability risks
  - Great for Pump and Treat type systems

What Saves Cost?

- Bonding Alternatives
  - *Background*
    - *Bonding controlled by Miller Act*
    - *Purpose of Legislation*
      - *Ensure construction project is performed*
      - *Ensure subcontractors, suppliers and laborers are paid for working on Federal construction projects*
  - *Bonding market shortfall (?) may impact Federal programs*

FAR Implementation of of Miller Act

- FAR 28.102
- FAR 28.102-2 Amount Required
  - *Performance Bonds – "Unless the contracting officer determines that a lesser amount is adequate for the protection of the government"*
  - *Payment Bonds – "Unless the contracting officer makes a written determination supported by specific findings that a payment bond in this amount is impractical"*

Other FAR Implications

FAR Part 9-Contractor Qualifications

- FAR 9.103 Policy – No purchase or award shall be made unless Contracting Officer makes an affirmative determination of responsibility
- FAR 9.104 General Standard
  - *Adequate financial resources*
  - *Satisfactory performance record*
- FAR 9.105 Procedures
  - *Pre-award Survey – information on financial resources and performance capability*

Bonding Reality

- Bonding companies do their own form of FAR Contractor Qualifications determinations as a process of offering bonding.
  - *Bonding rates vary – type of work, finances, past history*
  - *Bonding is not an inalienable "right"*
- Many Federal Agencies have used "bonding" as a defacto means of responsibility determination for construction projects.
- Bonded primes normally bond subcontractors
  - *Reduces available market bonding capacity*
  - *Results in layer if not duplicative bonding costs*

Bonding Reality

- Many small businesses are not offered bonding or have limited amounts of capacity.
- Bonding costs reduces the government's "bang per buck".

Miller Act Solution

- Use Stacked Bond Concept
  - *Project is still 100% bonded IAW Miller Act*
  - *Prime and major subs provide bonding*
  - *Subs have Prime and Federal Client named as insured / holders*
- Use Floating Bonds
  - *Contingent on the cost of work to be performed in a set period*
  - *Prompt Payment Act and electronic advancements make this viable solution to protect Government's interests.*
  - *Recommend development of mandatory notification to all subcontractors/suppliers (Flowdown notification clause)*

Pro and Cons to Alternatives

- More SB's can participate in federal construction projects as prime.
- Available bonding market capacity is more efficiently used.
- More real construction per dollar is acquired for "Client"
- Intent of Federal Legislation is accomplished
  - *Miller Act*
  - *Small Business Act*
  - *Competition in Contracting Act*

Implementing the Solution

- No legislation is required-FAR 28 authority already exists:
  - *"Unless the contracting officer determines that a lesser amount is adequate for the protection of the government"*
  - *"Unless the contracting officer makes a written determination supported by specific findings that a payment bond in this amount is impractical"*
- Issue DFAR clarification that contracting officers should consider the use of "Stacked" and "Floating" Bond models as feasible and adequate means of protecting the government interests.
- Add the subject of bonding to acquisition curriculum and annual training updates.